

ALSTON & BIRD LLP

One Atlantic Center
1201 West Peachtree Street
Atlanta, GA 30309-3424

404-881-7000
Fax: 404-881-7777
www.alston.com

Lee A. DeHihns, III

Direct Dial: 404-881-7151

E-mail: lee.dehahns@alston.com

October 16, 2009

BY COURIER

Michael Hom, Environmental Engineer
Clean Water Enforcement Branch
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

2009 OCT 20 A 10:21


**Re: October 6, 2009, Information Request – Section 308 of the Clean
Water Act - Dalton Utilities Land Application System**

Dear Mr. Hom:

Enclosed with this letter is information from Dalton Utilities in response to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures include two October 14, 2009, letters with certifications signed pursuant to the Request and the information separately responsive to Paragraphs 2 and 4 of Enclosure A.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/31578197v1



October 14, 2009

Mr. Michael Hom, Environmental Engineer
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

2009 OCT 20 A 10:21

Re: Compost Use Review Report Results

Dear Mr. Hom,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting the final analytical results received to date for the private drinking water wells in the vicinity where compost was utilized as a soil amendment and a sample of the fresh, dried biosolids cake prior to the addition of wood waste or composting. The results are contained in Attachments A and B which are provided herein as bound reports titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Lot # D9I020238 which contains 439 pages and Lot # D9I110126 which contains 315 pages, respectively.

The analytical results labeled as A and B in Attachment A correspond to private drinking water wells located at 208 Mountain Trail in Lafayette, Georgia, and 1095 Houston Trail in Rocky Face, Georgia, respectively. The sample identified as Sludge 1 & 2 corresponds to duplicate containers consisting of a fresh, dried biosolids cake prior to the mixing of wood waste. The sample location is indicated in Attachment B.

As stipulated in the aforementioned 308 letter, Dalton Utilities will provide additional results within five days of receiving the final analytical reports.

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the

Mr. Michael Hom
October 14, 2009
Page 2 of 2

information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cope", with a long horizontal flourish extending to the right.

Don Cope
President & CEO

Attachments (2)

- C: Dr. Carol Couch, Georgia Environmental Protection Division (cover letter only)
 Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural
 Resources (cover letter only)
 Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
 Lee A. DeHihns, Esq.

ANALYTICAL REPORT

Perfluorocarbon (PFC) Analysis

Lot #: D9I020238

Dena Haverland

**Dalton Utilities
1200 V.D. Parrot Jr. Parkway
Dalton, GA 30721**



**Michelle A. Johnston
Project Manager**

September 18, 2009

Case Narrative

D9I020238

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Sample Arrival and Receipt

The following report contains the analytical results for three samples received at TestAmerica Denver on September 2, 2009, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 1.3°C.

The samples were logged per client instruction on September 2, 2009, as the client indicated the information on the Chains of Custody was incomplete and/or erroneous. The client provided a revised chain of custody on September 4, 2009; however the sample ID information was still incomplete. On September 2, the client indicated that SLUDGE #1 and SLUDGE #2 were a single sample, rather than two samples, as indicated on the chain of custody. The sludge sample was logged with a sample ID of SLUDGE #1 & SLUDGE #2. Both the original and revised chains of custody are included in the report.

No other anomalies were encountered during sample receipt.

Standards

Analytical standards were prepared using commercially available certified solutions containing all compounds of interest.

The mass labeled compounds 13C4 PFBA, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and D3 MeFOSA were introduced at the extraction step and were used for internal standards for the quantitation of the target compounds.

Sample Extraction and Analysis

The samples presented in this report were extracted for the target analytes by TestAmerica Denver's Standard Operating Procedure (SOP) DV-OP-0019 and analyzed for the target analytes by TestAmerica Denver's SOP DV-LC-0012.

Method QC Samples

The Method Blank is processed reagent water spiked with surrogate and prepared with each batch of 20 samples of the same matrix. The method blanks were non-detect at the reporting limits for the target analytes, with the exception of the items noted in section Analytical Comments.

Each batch is prepared with low and mid level Laboratory Control Samples (LCS). The LCS recoveries for both levels were within established control limits, with the exception of the items noted in section Analytical Comments.

Analytical Comments

The Standard Operating Procedure (SOP) was altered slightly in the sample preparation for FOSA. Sodium hydroxide was added to all seven samples to obtain a pH of 14 instead of the SOP required <2. The basic pH is generating better internal standard recoveries for Me FOSA.

Please note, the organic preparation chemist added an additional 2mL of acid to sample SLUDGE #1 & SLUDGE #2, prior to filtering, to obtain the SOP required pH <2. The volume of Methanol required for the extraction was adjusted accordingly.

Due to low internal standard recoveries and cartridges clogging during the extraction process, samples and the associated QC in FOSA batch 9247171 were filtered through a PVDF filter after the spike and base were added to the samples. This is a deviation from the SOP.

The internal standard recoveries for MeFOSA, associated with QC batch 9247171, were recovered below 50% in samples A and B. This is an indicator that data may be biased low. Upon re-extraction and reanalysis within hold in QC batch 9251485, the surrogate recovery was 100% in control in sample A. However, the surrogate outlier was still present in sample B, demonstrating that this anomaly is most likely due to matrix interference. Both sets of data have been provided.

The low level LCS and mid-level LCS/LCSD analyses associated with QC batch 9247171 exhibited percent recoveries and surrogate recoveries outside the QC control limits. This is an indicator that data may be biased low. Upon re-extraction and reanalysis in QC batch 9251485, all QC recoveries were 100% in control. Both sets of data have been provided.

The internal standard recovery for 13C4 PFOA associated with QC batch 9252522 were recovered below 50% in sample SLUDGE #1 & SLUDGE #2. This is an indicator that data may be biased low. This anomaly is most likely due to matrix interference as internal standard recovery outliers were also present in the MS/MSD performed on sample SLUDGE #1 & SLUDGE #2.

The method required MS/MSD could not be performed for QC batches 9247171 and 9251485, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

The MS/MSD analyses performed on sample SLUDGE #1 & SLUDGE #2 associated with QC batch 9194436 exhibited surrogate recoveries outside the QC control limits for 13C4 PFOA and 13C4 PFOS. The acceptable low-level LCS and mid-level LCS analyses data indicated the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9I020238

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
SLUDGE #1 & SLUDGE #2 09/01/09 14:40	003			
PFOA	57	17	ug/kg	DEN -LC-0012
PFOS	210	11	ug/kg	DEN -LC-0012
Percent Moisture	76	0.10	%	ASTM D 2216-90

METHODS SUMMARY

D9I020238

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
LC/MS/MS PFCs	DEN -LC-0012	SW846 FOSA spec
LC/MS/MS, PFOA	DEN -LC-0012	
Method for Determination of Water Content of Soil	ASTM D 2216-90	ASTM D2216-90

References:

ASTM Annual Book Of ASTM Standards.

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

METHOD / ANALYST SUMMARY

D9I020238

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	Braden H. Peterson	6733
DEN -LC-0012	Jacqueline Bonnett	003601

References:

ASTM	Annual Book Of ASTM Standards.
DEN	Severn Trent Laboratores, Denver, Facility Standard Operating Procedure.

SAMPLE SUMMARY

D9I020238

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LJ7WL	001	A	09/01/09	12:00
LJ7WP	002	B	09/01/09	13:00
LJ7WT	003	SLUDGE #1 & SLUDGE #2	09/01/09	14:40

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Dalton Utilities

Client Sample ID: A

HPLC

Lot-Sample #....: D9I020238-001 Work Order #....: LJ7WL1AA Matrix.....: WATER
 Date Sampled....: 09/01/09 12:00 Date Received...: 09/02/09
 Prep Date.....: 09/03/09 Analysis Date...: 09/06/09
 Prep Batch #....: 9246452 Analysis Time...: 06:52
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0055
Perfluorooctanesulfonate	ND	0.020	ug/L	0.0068
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0062
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.0082
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0030
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.0054
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.0065
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0026
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0025
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.0040
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.0072
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.0087
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0045
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0084

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	106	(50 - 200)
13C4 PFOS	64	(50 - 200)
13C4 PFBA	94	(50 - 200)
13C2 PFHxA	101	(50 - 200)
18O2 PFHxS	78	(50 - 200)
13C5 PFNA	82	(50 - 200)
13C2 PFDA	73	(50 - 200)
13C2 PFUnA	64	(50 - 200)
13C2 PFDoA	78	(50 - 200)

Dalton Utilities

Client Sample ID: A

HPLC

Lot-Sample #....: D9I020238-001 Work Order #....: LJ7WL1AC Matrix.....: WATER
Date Sampled....: 09/01/09 12:00 Date Received...: 09/02/09
Prep Date.....: 09/04/09 Analysis Date...: 09/05/09
Prep Batch #....: 9247171 Analysis Time...: 08:57
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	1.5 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: A

HPLC

Lot-Sample #....: D9I020238-001 Work Order #....: LJ7WL2AC Matrix.....: WATER
Date Sampled....: 09/01/09 12:00 Date Received...: 09/02/09
Prep Date.....: 09/08/09 Analysis Date...: 09/11/09
Prep Batch #....: 9251485 Analysis Time...: 14:21
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	56	(50 - 200)

Dalton Utilities

Client Sample ID: B

HPLC

Lot-Sample #....: D9I020238-002 Work Order #....: LJ7WP1AA Matrix.....: WATER
 Date Sampled....: 09/01/09 13:00 Date Received...: 09/02/09
 Prep Date.....: 09/03/09 Analysis Date...: 09/06/09
 Prep Batch #....: 9246452 Analysis Time...: 07:08
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0055
Perfluorooctanesulfonate	ND	0.020	ug/L	0.0068
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0062
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.0082
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0030
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.0054
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.0065
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0026
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0025
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.0040
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.0072
riA)				
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.0087
FTeA)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0045
S)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0084
xS)				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	104	(50 - 200)
13C4 PFOS	61	(50 - 200)
13C4 PFBA	92	(50 - 200)
13C2 PFHxA	94	(50 - 200)
18O2 PFHxS	80	(50 - 200)
13C5 PFNA	81	(50 - 200)
13C2 PFDA	68	(50 - 200)
13C2 PFUnA	62	(50 - 200)
13C2 PFDoA	73	(50 - 200)

Dalton Utilities

Client Sample ID: B

HPLC

Lot-Sample #....: D9I020238-002 Work Order #....: LJ7WP1AC Matrix.....: WATER
Date Sampled....: 09/01/09 13:00 Date Received...: 09/02/09
Prep Date.....: 09/04/09 Analysis Date...: 09/05/09
Prep Batch #....: 9247171 Analysis Time...: 09:05
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	5.8 *	(50 - 200)

NOTE(S) :

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: B

HPLC

Lot-Sample #....: D9I020238-002 Work Order #....: LJ7WP2AC Matrix.....: WATER
Date Sampled....: 09/01/09 13:00 Date Received...: 09/02/09
Prep Date.....: 09/08/09 Analysis Date...: 09/11/09
Prep Batch #....: 9251485 Analysis Time...: 14:29
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	39 *	(50 - 200)

NOTE(S) :

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: SLUDGE #1 & SLUDGE #2

HPLC

Lot-Sample #....: D9I020238-003 Work Order #....: LJ7WT1AA Matrix.....: SOLID
 Date Sampled....: 09/01/09 14:40 Date Received...: 09/02/09
 Prep Date.....: 09/09/09 Analysis Date...: 09/15/09
 Prep Batch #....: 9252522 Analysis Time...: 20:01
 Dilution Factor: 1
 % Moisture.....: 76 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
PFOA	57	17	ug/kg	2.1
PFOS	210	11	ug/kg	2.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	42 *	(50 - 200)
13C4 PFOS	53	(50 - 200)

NOTE (S) :

* Surrogate recovery is outside stated control limits.
 Results and reporting limits have been adjusted for dry weight.

Dalton Utilities

Client Sample ID: SLUDGE #1 & SLUDGE #2

General Chemistry

Lot-Sample #....: D9I020238-003 Work Order #....: LJ7WT Matrix.....: SOLID
Date Sampled....: 09/01/09 14:40 Date Received...: 09/02/09
% Moisture.....: 76

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	76	0.10	%	ASTM D 2216-90	09/11/09	9254056
		Dilution Factor: 1		Analysis Time...: 09:00	MDL.....: 0.0	

QC DATA ASSOCIATION SUMMARY

D9I020238

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	DEN -LC-0012		9246452	
	WATER	DEN -LC-0012		9247171	
	WATER	DEN -LC-0012		9251485	
002	WATER	DEN -LC-0012		9246452	
	WATER	DEN -LC-0012		9247171	
	WATER	DEN -LC-0012		9251485	
003	SOLID	DEN -LC-0012		9252522	9252283
	SOLID	ASTM D 2216-90		9254056	9254050

ANALYTICAL REPORT

Perfluorocarbon (PFC) Analysis

Lot #: D9I110126

Dena Haverland

**Dalton Utilities
1200 V.D. Parrot Jr. Parkway
Dalton, GA 30721**


for: **Michelle A. Johnston**
Project Manager

September 25, 2009

Case Narrative

D9I110126

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Sample Arrival and Receipt

The following report contains the analytical results for one sample received at TestAmerica Denver on September 10, 2009, according to documented sample acceptance procedures. The sample was received in good condition at a temperature of 2.9°C.

Sample #77 454 JIM PETTY RD was initially logged in lot D9I100275, as all samples were listed on a single chain of custody. Per client instruction on September 11, 2009, this sample was deleted from lot D9I100275 and moved to D9I110126. A revised chain of custody was received on September 12, 2009. Both the original and revised chains of custody are included in the report.

No other anomalies were encountered during sample receipt.

Standards

Analytical standards were prepared using commercially available certified solutions containing all compounds of interest.

The mass labeled compounds 13C4 PFBA, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and D3 MeFOSA were introduced at the extraction step and were used for internal standards for the quantitation of the target compounds.

Sample Extraction and Analysis

The samples presented in this report were extracted for the target analytes by TestAmerica Denver's Standard Operating Procedure (SOP) DV-OP-0019 and analyzed for the target analytes by TestAmerica Denver's SOP DV-LC-0012.

Method QC Samples

The Method Blank is processed reagent water spiked with surrogate and prepared with each batch of 20 samples of the same matrix. The method blanks were non-detect at the reporting limits for the target analytes.

Each batch is prepared with low and mid level Laboratory Control Samples (LCS). The LCS recoveries for both levels were within established control limits, with the exception of the items noted in section Analytical Comments.

Analytical Comments

The Standard Operating Procedure (SOP) was altered slightly in the sample preparation for FOSA. Sodium hydroxide was added to the sample to obtain a pH of 14 instead of the SOP required <2. The basic pH is generating better internal standard recoveries for Me FOSA.

The Standard Operating Procedure (SOP) was altered slightly in the sample preparation for FOSA for batch 9260167. Strata-XL cartridges were used instead of the SOP required Strata-X. This was done to help minimize the clogging problems in these samples. The Strata-XL has a larger pore size allowing more viscous sample matrix to be extracted.

Due to a low internal standard recovery, sample #77 454 JIM PETTY RD was re-extracted out of the laboratory prescribed hold time and reanalyzed in QC batch 9260167. Both batches are included in this report. Please note the sample results should be considered estimated.

The internal standard recovery of MeFOSA, associated with QC batch 9254190, was recovered below 50% in sample #77 454 JIM PETTY RD. Upon re-extraction and reanalysis outside of hold in QC batch 9260167, the internal standard recovery was 100% in control. Both sets of data have been provided.

Due to a limitation in the LIMS system, the low-level LCS associated with QC batch 9254187 reported the percent recoveries for Perfluorotridecanoic Acid (PFTriA) and Perfluorotetradecanoic Acid (PFTeA) as 0.0%. PFTriA was recovered within the control limits (50-150%) at 53% and PFTeA was recovered within the control limits (50-150%) at 55%. As these compounds were detected below the Method Detection Limit (MDL) of 0.020 ug/L, the system reports the percent recoveries as 0.0%.

The method required MS/MSD could not be performed for QC batches 9254187, 9254190 and 9260167, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9I110126

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
#77 454 JIM PETTY RD 09/04/09 12:57 001				
Perfluorohexanoic acid (PFHxA)	0.0040 J	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.056	0.020	ug/L	DEN -LC-0012

METHODS SUMMARY

D9I110126

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
LC/MS/MS PFCs	DEN -LC-0012	SW846 FOSA spec

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

METHOD / ANALYST SUMMARY

D9I110126

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
DEN -LC-0012	Jacqueline Bonnett	003601

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

SAMPLE SUMMARY

D9I110126

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LKL3C	001	#77 454 JIM PETTY RD	09/04/09	12:57

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Dalton Utilities

Client Sample ID: #77 454 JIM PETTY RD

HPLC

Lot-Sample #....: D9I110126-001 Work Order #....: LKL3C1AA Matrix.....: WATER
 Date Sampled....: 09/04/09 12:57 Date Received...: 09/10/09
 Prep Date.....: 09/11/09 Analysis Date...: 09/17/09
 Prep Batch #....: 9254187 Analysis Time...: 08:18
 Dilution Factor: 1 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.0040 J	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	0.056	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	104	(50 - 200)
13C4 PFOS	63	(50 - 200)
13C4 PFBA	81	(50 - 200)
13C2 PFHxA	91	(50 - 200)
18O2 PFHxS	86	(50 - 200)
13C5 PFNA	80	(50 - 200)
13C2 PFDA	66	(50 - 200)
13C2 PFUnA	54	(50 - 200)
13C2 PFDoA	56	(50 - 200)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: #77 454 JIM PETTY RD

HPLC

Lot-Sample #....: D9I110126-001 Work Order #....: LKL3C1AC Matrix.....: WATER
Date Sampled....: 09/04/09 12:57 Date Received...: 09/10/09
Prep Date.....: 09/11/09 Analysis Date...: 09/12/09
Prep Batch #....: 9254190 Analysis Time...: 16:19
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	47 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #77 454 JIM PETTY RD

HPLC

Lot-Sample #....: D9I110126-001 Work Order #....: LKL3C2AC Matrix.....: WATER
Date Sampled....: 09/04/09 12:57 Date Received...: 09/10/09
Prep Date.....: 09/17/09 Analysis Date...: 09/19/09
Prep Batch #....: 9260167 Analysis Time...: 03:45
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	64	(50 - 200)